

Foreword

This volume is the proceedings of “The Thirteenth Symposium on Coordinated Observations of the Ionosphere and the Magnetosphere in the Polar Regions” which was held at the National Institute of Polar Research (NIPR) on January 22–23rd, 1990. The NIPR annual symposia are devoted to discussing significant scientific results of studies on the ionosphere and the magnetosphere in the polar regions. The thirteenth symposium consisted of following nine oral sessions: 1) Magnetosphere-ionosphere-thermosphere coupling, 2) Aurora and related phenomena, 3) Low latitude aurora observed on October 21, 1989, 4) Future plan, 5) EXOS-D (AKEBONO) satellite observation, 6) ULF waves, 7) Geomagnetic conjugate and multiple station observations, 8) ELF-VLF waves, 9) Ionosphere disturbances.

The present volume contains 11 selected scientific papers among 55 individual contributions presented at the symposium. It is hoped that this Proceedings of the NIPR Symposium on Upper Atmosphere Physics will be valuable to those who are interested in the ionospheric and magnetospheric phenomena in the polar regions and also to those who are concerned with Antarctic research activities.

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